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EXAMINER

TANG, KENNETH

ART UNIT	PAPER NUMBER
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2127

12

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

P24

Office Action Summary	Application No. 09/496,069	Applicant(s) YOSHIMURA ET AL.	
	Examiner Kenneth Tang	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Non-final action is in response to paper number 8, Amendment B, filed on 9/22/03.
2. Claims 1-8 are presented for examination.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "utility rate ratio" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 6-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The term "utility rate ratio" is not defined in the specification.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the term "utility rate ratio" has an alternate meaning than a "utility rate." It is currently understood by the Examiner that the utility rate is a ratio (percentage). The Examiner understands the term "utility rate ratio" as a ratio of two utility rates, but the specification and drawings don't appear to support that. Clarification is respectfully requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (hereinafter Chen) (US 5,553,235) in view of Kincheloe et al. (hereinafter Kincheloe), in**

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view of Gerardin et al. (hereinafter Gerardin) (US 6,222,822 B1), and further in view of Killian et al. (hereinafter Killian) (US 6,477,683 B1)

7. Referring to claim 1, Chen teaches a system diagnosis apparatus that diagnoses system resources of a computer system, comprising:

- an acquisition unit which acquires information on a utility rate of the system resources and a queue for the system resources (*"capturing performance statistics", see Abstract, and "two means of acquiring information about the monitoring of consoles and instruments", col. 7, lines 10-16, and "statistics for a system resource", col. 22, lines 53-55, and "two statistics: level and queue", col. 69, lines 34-35*); *Runtime/measuring time is a performance statistic and is a measure of utility.*
- a memory unit that stores thresholds of the utility rate and the queue, wherein the thresholds represent the limits at which the system resources perform desired performances (*"threshold alarm value", "stored in a record", col. 16, lines 6-19, and "recording subsystem 20", see Figure 5, and "information", "monitoring console's configuration", "stored in the recording file 100", col. 6, line 66, and "values are individual statistics", "recorded", col. 8, lines 27-33, "capturing performance statistics", see Abstract, and "two statistics: level and queue", col. 69, lines 34-35*); *It is inherent that a computer system has a memory unit (col. 3, lines 17-20).*
- a diagnosis unit that diagnoses the performance of the system resource (*"apparatus", "performance diagnostics", See claim 11*).

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Chen fails to explicitly teach the performance statistics to specifically be utility rates and that utility rates are being acquired and stored in memory. However, Kincheloe teaches a utility usage monitoring system (see title) that receives and stores the basic utility data needed for utility monitoring (*"To achieve the foregoing goals, one embodiment of the present invention utilizes a commercially available microprocessor to receive and store the basic data, and to automatically apply the base charges, break points, etc. to provide highly accurate utility monitoring throughout any charge period."*, col. 8, lines 59-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of receiving and acquiring utility rates to the existing system for the reason of having the data necessary for the monitoring or diagnostic to occur. Utility rates are a measure of statistical performance.

Chen fails to explicitly state that the diagnosis of the performance of the system consists of:

- system resource has lowered when the utility rate is higher than the threshold of the utility rate and the queue length is shorter than the threshold of the queue length, or diagnoses that the number of the system resources is insufficient when the utility rate is higher than the threshold of the utility rate and the queue length is longer than the threshold of the queue length.

However, Gerardin teaches using a queue threshold which detects whether the queue is longer than the queue threshold (*"queue threshold detector"*, *"threshold exceeded-signal"*, *"queue occupancy exceeds a predetermined threshold level"*, see claim 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of

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using a queue threshold which detects whether the queue is longer than the queue threshold for the reason of increasing the control of the system by having some sort of indicator or signal to know when boundaries are exceeded (*see claim 1*), and thus, will know when the system resource needs to be improved.

In addition, the reference of Killian teaches diagnosing by the utility value being compared with the threshold value ("*evaluating a global utility function*", "*threshold*", "*optimization*", *col. 18, lines 59-67*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of comparing the utility value with a threshold value to the existing system for the reason of increasing the control by having some sort of indicator or signal to know when boundaries are exceeded so that it is known when optimization should occur.

Chen fails to explicitly teach wherein the system diagnosis apparatus transmits, to the computer system, information including upgrade recommendation information for replacing or adding to a system resource that is diagnosed to have low performance. However, Bergeron teaches that the system could be programmed to send/transmit a notification to indicate that it was approaching maximum utilization (or low performance) ("*system could be programmed to indicate that it was approaching maximum utilization*" and *a notification can be sent, col. 9, lines 17-22*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of notifying when the system was approaching low performance for the reason of improving the performance and maintenance of the system by having an indication or

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signal of the poor state of the system so that remedial action can be taken before there is a system failure or further system degradation (*col. 9, lines 1-22*).

8. Referring to claim 2, Chen teaches:

- a system resource determining unit which determines a system resource capable of giving the desired performance when it is diagnosed by the diagnosis unit that the performance of the system resource has lowered, or determines a number of the system resources capable of giving the desired performance when it is diagnosed by the system diagnosis unit that the number of the system resources is insufficient (*"library", "performance monitor recordings", "diagnosis", "poorly performing data processing systems", "capturing performance statistics", see Abstract*);

Bergeron teaches:

- an ordering unit which orders the system resource determined by the system resource determining unit as the system resource for upgrading (*"system could be programmed to indicate that it was approaching maximum utilization" and a notification can be sent, col. 9, lines 17-22*).

9. Referring to claim 3, Chen teaches:

- where the ordering unit transmits, utilizing a network, the ordering information on the system resources to a device installed at the supplier of the system resources (*network, see Figure 8, item 200, network send/rcv interface 70, and data sources 210, and*

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“identifying data suppliers”, col. 12, line 28). The computer processor is a unit that makes the order.

10. Referring to claim 4, Chen inherently teaches:

- a notifying unit which notifies, utilizing a network, the result of diagnosis by said diagnosis unit to the user of the system.

Chen discloses “receiving notification of a defective condition” (*see Claim 10*). Chen also teaches a “performance monitor tool” which interacts with the user for monitoring (diagnosis) and also provides an interface for interaction (notification) with a user to control processes within a data processing system (*col. 4, lines 60-67*).

11. Referring to claim 5, Chen teaches the following:

- a memory unit storing in correlation to each of the system resource a flag indicating necessity or not of upgrade, which necessity is judged by the user;
- ordering unit orders only the system resources that have a flag that indicate necessity of upgrade out of the system resources determined by the system resource determining unit as the system resources for upgrading.

Claim 5 is rejected for the same reasons as stated in claim 1. It is inherent that a flag is used to represent a boolean variable (necessity or not of upgrade).

12. Referring to claim 6, Chen teaches the following:

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- acquisition unit acquires information on a response time of the system resources in addition to the utility rate and the queue
- memory unit stores a threshold of the response, which threshold represents the limits at which said system resource exhibits a desired performance, in addition to the thresholds of the utility rate and the queue
- diagnosis unit makes the diagnosis on the basis of the result of comparison between the acquired response time and the threshold of response time.

Claim 6 is rejected for the same reasons as stated in the rejection of claim 1. In addition, Chen discloses that the response time is monitored in the system (*"concerned with monitoring of the response time" by the "Dynamic Data Supplier program", col. 75, lines 10-19*).

13. Referring to claims 7 and 8, they are rejected for the same reasons as stated in the rejection of claim 1.

ARGUMENTS

14. Applicant argues on page 10, 2nd paragraph, that Chen does not disclose or suggest a system for diagnosing a system.

In response, Examiner respectfully disagrees. Chen teaches a system and method for maintaining performance data in a data processing system (see Title).

15. Applicant argues on page 11, 2nd paragraph that since the Gerardin reference does not acquire, store, or diagnose the utility rate ratio and does not include update recommendation

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information, it would not have been obvious to combine these steps based on the teachings of the Gerardin reference.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, the Gerardin reference is in the same field of endeavor in the art of computer data structures. Gerardin teaches a queue using queue thresholds, which is used in the same manner as necessary by the Applicant's system. Therefore, the combination of these references is proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 8:30AM - 7:00PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Grant can be reached on (703) 308-1108. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 746-7140.

Kt
11/6/03

MAID A. BANANKHAH
PRIMARY EXAMINER